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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,642	02/12/2004	Yandong Jiang	7570/80972	1766

7590 05/15/2007  
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Washington, DC 20006-1201

EXAMINER
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ALI, SHUMAYA B

ART UNIT	PAPER NUMBER
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3771

MAIL DATE	DELIVERY MODE
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05/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/776,642

Applicant(s)

JIANG ET AL.

Examiner

Shumaya B. Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 12-26 is/are rejected.
- 7) ☒ Claim(s) 2-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Oath/Declaration*

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be **material to patentability** as defined in **37 CFR 1.56**.

For the instant application the oath or declaration states: I acknowledge the duty to disclose information which is **material to the examination** of this application in accordance with 37 C.F.R. § **1.56(a)**, thus the oath or declaration does not comply with 37 CFR 1.67(a).

### *Specification*

The disclosure is objected to because of the following informalities: reference number 16 is used to indicate both a nebulizer and hydrophobic coating, see specification page 9, lines 26-30. Appropriate correction is required.

### *Claim Objections*

Claim 1 is objected to because of the following informalities: in line 7, consider changing the term “a gas/liquid” to --said gas/liquid-- and “a high pressure compartment” to --the high pressure compartment--

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 1, in line 17, what is considered “means for releasing mist” is unclear. From the specification it can be determined that means for releasing mist is a pipe. In line 16 a “mist pipe” is claimed, thus what additional “means for releasing mist” the claim may be referring to is unclear.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Copper US 5,483,953.**

As to claim 1, Cooper in figures 3A and 3B discloses a device for generating a mist, comprising: (a) a high pressure pump (32/30) having a pump chamber (pump 36/32/30 are

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**within a chamber defined by walls 84,26, and 86)** connected to a high pressure compartment (50) in a gas/liquid container (10); (b) a gas reservoir (69) connected to said pump chamber by a gas pipe (70); (c) a liquid reservoir (68) connected to said pump chamber by a liquid pipe (76);(d) a gas/liquid container (10) comprising a high pressure compartment (50) and a low pressure compartment (28), wherein: (i) said high pressure compartment is connected to said pump chamber (see fig.3A); (ii) there are one or more orifices (46) within said high pressure compartment that, when open, connect said high pressure compartment with said low pressure compartment (see fig.3A), wherein said orifices, when open, are 1-25 micrometers in diameter (see fig.3A, the diameter of orifice 46 is within the range of 1-25 micrometers); (iii) there is a mist pipe (fig.3A, 24) connecting said low pressure compartment to means for releasing mist (36) from said gas/liquid container.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claim 12-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper US 5,483,953.**

As to claims 12-26, Cooper lacks a detailed method steps cited in claims 12-26. Cooper however teaches structure required to perform the method step cited in claims 12-26. Furthermore, claims 12-26 only limit the device to “any one of claims 1-11”, and since Cooper teaches all structures of claim 1, the method step that only requires the device of “any one of claims 1-11” would have been an obvious result of using the device of Cooper.

#### ***Allowable Subject Matter***

Claim 2-11 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and upon addressing issues raised under 35 USC 112 second paragraph.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jiang et al. (US 7,201,163 B2), Grychowski et al. (US 6,748,945 B2), Michaels et al. (US 3,812,854), Maeda (US 4,604,999), Patton et al. (US 6,138,668), Conda (US 2,826,454), Adams (US 1,455,377), Fitzner (US 1,580,293), Langevin (US 3,169,524), Shang et al. (US 3,394,804), Cinquin (US 5,864,171), Engstrom et al. (US 3,291,122), Piccino et al. (US 3,918,640), Shanbrom (US 3,99,743), Cooper (US 287,098), Silten (US 2,040,630), Glenn (US 5,241,954), Shofner, II et al. (US 2002/0033173 A1), Gauthier et al. (US 3,387,607), and Langevin (US 3,169,524) are cited to teach mist generator.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-W-F 8:30am-5:00 pm.

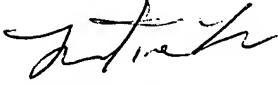
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Shumaya B. Ali  
Examiner  
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JUSTINE R. YU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
5/11/07